

REMARKS/ARGUMENTS

Favorable reconsideration of this application as currently amended and in view of the following remarks is respectfully requested.

Claims 1-6 are currently active. Claims 1-6 have been amended by the current amendment. No new matter has been added.

In the outstanding office action, the specification was objected to; claims 1-6 were rejected under 35 USC 112, first paragraph, for failing the written description requirement; claims 1-6 were rejected under 35 USC 112, second paragraph, as being indefinite; and claims 1-6 were rejected under 35 USC 103(a) as being unpatentable over U.S. patent No. 5,733,080 to David et al. in view of U.S. patent No. 5,193,314 to Wormley et al.

In response to the 35 USC 112, first paragraph, rejection, Applicants respectfully point out that the limitation “without modifying steps of said pre-designed machining process” has been deleted from the claims. Consequently, the 35 USC 112, first paragraph, rejection is believed to be moot.

In response to the 35 USC 112, second paragraph, rejection, Applicants have amended claim 1 to clarify that a casting mold is provided to cast the turbine blade or vane. The “without modifying steps” limitation has been deleted as discussed above. Consequently, no further rejections under 35 USC 112, second paragraph, is anticipated.

Briefly recapitulating, the present invention (claim 1 as amended) is directed to a method for producing a turbine blade or vane. To that end, claim 1 defines the steps of providing a casting mold for casting the turbine blade or vane, the casting mold including a blade or vane platform and a main blade or vane part, and a position of the main blade or vane part relative to the blade or vane platform determining a first angle of incidence; providing additional machining stock to the blade or vane platform at predetermined locations; machining the casting using a process which is specified for the first angle of

incidence; rotating the casting around a longitudinal axis for an angle which is equal to the difference between said first angle of incidence and a second angle of incidence, and subjecting said rotated casting to said machining process to remove at least partially the additional machining stock.

In contrast thereto, David et al. disclose a process for milling a turbine-blade profile extending along a main axis by means of a milling cutter which rotates about an associated axis of rotation. During the milling process, material is removed from the whole surface of the blade, i.e., the suction side, the pressure side and edges (see Figs. 1-3 of David et al.). The thickness of the removed layer of material is essentially equal for all parts of the blade surface. Accordingly, there is no teaching or suggestion how to machine the blade to achieve an angle of incidence, which differs from the angle of incidence of the non-machined blade.

The same is true for the Wormley et al. reference. In Wormley et al., a grinding machine is adapted to produce blades and buckets used in turbines. Data blocks representing the surface of the object to be grinded (i.e., the blade) are stored in a computer that controls the machine to finish a rough blank into the final object. The surface of the blade is uniformly grinded by rotating the blade relative to the nose roller of the grinding machine. A changing of the angle of incidence is not taught or suggested.

For the foregoing reasons, David et al. are not believed to anticipate or render obvious the subject matter defined by claim 1 even when considered in view of Wormley et al. Dependent claims 2-6 are believed to be allowable for at least the same reasons that claim 1 is believed to be allowable.

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An early and favorable action is respectfully requested.

Respectfully submitted,

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